

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER 05318118
PUBLICATION DATE 03-12-93

APPLICATION DATE 30-04-92
APPLICATION NUMBER 04139714

APPLICANT : DAIHEN CORP.

INVENTOR : MATSUMOTO ICHIRO:

INT. CL. B23K 9/12 B23K 9/095 B23K 9/173 / B23K 9/073 G05B 13/02

TITLE : METHOD FOR CONTROLLING ARC LENGTH FOR GMA WELDING

ABSTRACT : PURPOSE: To obtain satisfactory welding quality by controlling arc length in accordance with the number of times for short-circuiting and providing the stability of arc.

CONSTITUTION: In the method of controlling the arc length of GMA welding in which arc welding is performed by using a sealed gas and supplying a consumable electrode, an average number of times for short-circuiting per unit time during an n-th controlling period is calculated for each elapse of the extracted unit time for short-circuiting, the optimum length of the controlling period is calculated from a function of the difference between this average number of times for short-circuiting and a target average number of times for short-circuiting as $f(Q_{tu}-Q_{ru})$, the n-th time is completed either by the timing when the calculated value is shorter than a specific value or by the elapse of the n-th period, a modified quantity for welding output ΔP_{n+1} is calculated in accordance with the difference $(Q_{tu}-Q_{ru})$, and by $P_{n+1}=P_n+\Delta P_{n+1}$, the output value in the (n+1)th control period is controlled.

COPYRIGHT: (C) JPO